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AUTHOR Taylor, Elizabeth; Morgan , Alistair R.
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ABSTRACT

Changes in a group of students' conception of learning over 6 years of part-time study were investigated at Great Britain's Open University. The direct exploration of students' experiences of learning involved a qualitative and phenomenological research paradigm. Learning was described in the context of the natural setting based on the learner's perspective. Eighteen Open University students, who initially registered for the Social Sciences Foundation course in 1980, were interviewed before they started and at the end of their foundation course. They were then interviewed during each year of subsequent study, as they progressed toward graduation in 1985. Students told how they decided to take their courses and what they had gained from study. In the later interviews, they told about any changes in study habits and critical incidents that stood out in their careers as students. Stages of student development were identified that were linked to confidence, competence, and locus of control. At the start of their studies many students expressed lack of confidence in their ability to study: they relied on the teaching system of The Open University to control and direct their learning. It appeared that developing greater confidence was a key step in developing competence in learning. (SW)

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DIVISION J

# DEVELOPING SKILL IN LEARNING

Dr Elizabeth Taylor
Educational Development Unit
Newcastle-Upon-Tyne Polytechnic
NEWCASTLE
England

and

Dr Alistair R Morgan
Institute of Educational Technology
Open University
Milton Keynes
England

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# DEVELOPING SKILL IN LEARNING

## Background

How do students come to be more experienced and competent as learners? What is the nature of the changes which occur as students progress from a foundation course through to graduation? How can we, as teachers in post-compulsory education, facilitate these changes in our students? The present research addresses these key questions. Our research builds upon existing work carried out with conventional age undergraduates and extends it for adult students studying part-time at a distance. There are three main themes in the theoretical background to the present study: Perry's work on student development; students' conception of learning and their orientation to study.

Perry (1970) explored how students in a liberal arts college came to understand and to cope with the demands of academic study. He used the following example of how different students perceive the same teaching and learning event in very different ways to highlight the focus of his research.

> "Let us suppose that a lecturer announces that today he will consider three theories explanatory of ------ (whatever his topic may be). Student A has always taken it for granted that knowledge consists of correct answers, that there is one right answer per problem, and that teachers explain these answers for students to learn. He therefore listens for the lecturer to state which theory he is to learn.
>
> Student B makes the same general assumptions but with an elaboration to the effect that teachers sometimes present problems and procedures, rather than answers, "so that we can learn to find the right answer on our own". He therefore perceives the lecture as a kind of guessing game in which he is to "figure out" which theory is correct, a game which is fair enough if the lecturer does not carry it so far as to hide things too obscurely.
>
> Student C assumes that an answer can be called "right" only in the light of its context, and that contexts or "frames of reference" differ. He assumes that several interpretations of a poem, explanations of a historical development, or even theories of a class of events in physics may be legitimate "depending on how you look at it".

> Though he feels a little uneasy in such a kaleidoscopic world, he nonetheless supposes that the lecturer may be about to present three legitimate theories which can be examined for their internal coherence, their scope, their fit with various data, their predictive power, etc.
>
> Whatever the lecturer then proceeds to do (in terms of his own assumptions and intent) these three students will make meaning of the experience in different ways which will involve different assessments of their own choices and responsibilities."

Perry's research involved a four year longitudinal study with students being interviewed each year about their experiences in college. Going beyond the individuality of students' accounts of the college experience, there seemed to be a common sequence of challenges encountered by students and also a pattern to the changes they went through. Perry outlined a nine stage scheme in which there are three very clearly distinct phases. Students initially held absolutist conceptions of knowledge, where the teacher was perceived of as the authority figure, "knowing the answers". Then there was a change to more relativistic conceptions of knowledge and finally some students moved to a position of having a personal commitment to a particular position within a relativistic epistemology.

Independent work carried out by Saljo (1979) in Sweden identified different conceptions of learning held by a wide variety of students. Students from a range of ages and experience were interviewed in-depth about what they thought learning consisted of. Five distinct conceptions were described. Learning was seen as:

(i) a quantitative increase in knowledge.
(ii) memorising new information.
(iii) the acquisition of facts, methods, procedures, etc., which can be retained and used where necessary.
(iv) the abstraction and construction of meaning.
(v) an interpretative process aimed at understanding some concept, idea or aspect of reality.

Essentially conceptions 1-3 are concerned with memorising and reproduction information, whereas conceptions 4 and 5 are concerned with constructing meaning and "going beyond the information given." Although Saljo's work identified these differences with different groups of subjects, there was clearly a developmental implication.

An important part of the present research has been to investigate changes in conception of learning with the same group of students over six years of part-time study with the Open University.

In looking at student development, particularly with adults, it is essential to understand how they come to be engaged in post-compulsory education. The term orientation to study (Taylor, 1983) has been used to describe how students come to be taking a particular course and what they hope to gain from it. Whereas motivation studies focus on factors which push or pull students towards various goals, 'Orientation' takes account of the conscious control of learners over how and what they study and provides a holistic description of student's purposes for study. Four distinct types of orientation have been identified. These are academic orientation, where students goals are concerned with the academic side of college life; vocational orientation, where students goals are to do with getting employment; personal orientation, where students goals are to do with personal development and social orientation, where students interests are concerned with the social side of college life. The first three orientations can be subdivided depending on whether a student is interested directly in the content of the course, or whether studying is a means to an end. These sub-types were labelled intrinsic and extrinsic, respectively. Three main orientations, personal, vocational and academic, have been identified with Open University students (Gibbs, Morgan, Taylor 1984). The concept of orientation provides a background to understanding how students relate to their courses of study and contributes to interpreting how they have changed and developed.

## Research Perspective

The theoretical background to our research shares a common methodological perspective: it is concerned with the direct exploration of students' experiences of learning. Although there are variations between studies, they are all located within the qualitative - phenomenological research paradigm. Our research methodology is located in this paradigm.

The concern of all this research, which could be called "naturalistic inquiry"' is to describe learning in context in natural setting and to describe it from the learner's perspective.

Marton (1981) has labelled this research approach as "phenomenography". Whilst phenomenology tends to be focussed on methodology, phenomenography is substance orientated and concerned with content.

McKeachie (1984) described this research perspective as follows: "Essentially this is a sort of hard nosed phenomenology in which intensive interviews of learners are systematically collected and analysed. The results are not only useful for theory building because of their intrinsic relationship to actual experiences, but also offer compelling insights for teachers".

Our research builds on Marton's work and extends it by using in-depth interviews with students over a number of years so as to generate detailed case studies of individuals.

Method

A group of eighteen Open University students, who initially registered on the Social Sciences Foundation course in 1980, were interviewed before they started and at the end of their foundation course. They were then interviewed again during each year of subsequent study, as they progressed towards graduation in 1985. Thus we have in-depth six year case studies of how these students coped with demands of Open University study.

The interviews were wide-ranging in-depth interviews designed to explore students' experiences of Open University study. For example, we asked students how they came to be taking their courses and what they had gained from study. In the later interviews we asked them about any changes in study habits and 'critical incidents' which stood out in their careers as students. Also to follow up the work of Saljo (1979) we asked students in each interview what they thought learning consisted of. Over a period of six years a unique rapport built up with the interviewees and also the interviews became more conversational covering more personal issues.

Footnote: The Open University provides degree level education for adults studying part-time at a distance. The teaching materials consist of specially prepared correspondence texts, set books, television and radio broadcasts, supported by face-to-face tuition organised at a local level.

Each interview was tape recorded and transcribed in full. Data analysis was carried out systematically through reading and re-reading interview transcripts to identify the "essences" or "significant phenomena" in each interview. The procedure has been carried out by the researchers and also with external judges to check the validity of interpretation. Thus we have adopted a rigorous qualitative research methodology.

## Drop-outs and Finishers

What happened to the group of eighteen adult students studying part-time over a period of six years? How were some successful? How were others unsuccessful? How did they progress* towards a degree? Some students did not continue after their first year of study. Although they were successful in passing the course, due to changing personal circumstances, they chose to discontinue study. We labelled them 'dormant students', i.e. officially registered as students, but not taking any courses. Six students are in this category. There were also two students who completed their first course, but failed to gain a credit. (Early drop-outs, before the end of the first year of study, are not included in the developmental study). The main findings of the paper are derived from the ten students, we have termed the "finishers". All students began their studies on the Social Science Foundation course. The structure of the degree profile allows students free choice across all the University courses, so students are undertaking a variety of course profiles. However, all the students were studying broadly within the social science, education and arts areas although a few students followed an introductory technology course. This group, although they have not all studied at exactly the same rate, graduated in 1985 or expect to in 1986. The main findings are derived from the ten students. The evidence in the interviews provides very rich intensive case-studies from which patterns emerge beyond the individuality and idiosyncratic nature of some of the data.

## Change and Development

Over the six years of the research students have obviously changed in the normal course of events. But in terms of their development as learners and in relation to their studies the interviews show clear developments and change.

* The Open University offers a credit based degree programme. Six credits are required for an Ordinary Degree, courses are structured as half-credits or full credits and students can progress at their own pace.

From the interviews we can identify changes from three types of evidence. First, there are answers in different interviews to the same question. By looking at the answers in early interviews and comparing with the answers in later interviews we can look for change and development. Second, there are times when students are talking about the same topics in different interviews, although the context and the questions eliciting the response may not be the same. Here we can show that attitudes or understandings have changed and developed. The third type of evidence for change and development is when students themselves are talking consciously of change and describing developments that they are aware of in themselves, sometimes specifically referring to earlier interviews; at other times talking generally about changes they perceive in themselves. These types of evidence can be illustrated by taking examples from one student' transcripts:

Type I evidence of change:

One of the questions asked in each of the interviews was about the student's conception of learning. The question we asked to find out about this was "Can you tell me what exactly you mean by 'learning'". This was asked at an appropriate time during the interviews when the students were talking about what they had learnt from their current course or when they used the word learning in their response to another question. We wanted to find out if the five conceptions of learning would appear in like form in our sample and if they would help to identify change over years of study. The examples below show extracts form the answer to this question for the same student in year I and in year 5 of the course. A clear difference can be seen which indicates a growth of understanding and awareness of issues surrounding the idea of learning itself:

> "Well, I don't know really. I suppose knowing things that I don't know about now ..... When I do think about learning, I'm still very much at school and I know it' a very different sort of learning and if I look through a book, it's still sort of learning facts and dates and names rather than the content. And if I have read something I'm so bothered about taking in what it said that I have read it and I think what have I just read?"
>
> (Year I)

> "Real learning is something personal and it's also something that is continuous, once it's started, it carries on and on and it might lead to other things. So much learning is learned for a particular purpose, and when you have achieved whatever it was learned for then that's it, it can go away, it's disposable, you can get rid of it. Once it's over, it's over and you are the same person afterwards as you were before. But with real learning hopefully the unit of work you are given is only the catalyst really it is only one hundredth of the learning and the rest goes on once you put the book down. And the next time you talk to someone or read something in the newspaper, that's when the rest happens because it's been started and you carry it on for yourself because you want to and you get something lasting from it".
>
> (Year 4)

Type 2: evidence of change:

The second type of evidence comes from times in the interviews when the same topic concept or idea recurs. In the following quotations taken from year 1 and 4 from the same student's transcripts, we can see the difference in how "jargon" is percieved over time.

> "I was really annoyed by the word 'anomie' it didn't seem to be in any dictionary or anything and the only place I found that it was in common use was in the 1750 - well that's wonderful - if people use that sort of word, and I hate that sort of thing anyway, and I was so cross - people saying things in a way that they think sounds clever".
> (Year 1)

> "If I am speaking to somebody either that has done the same unit or the same course or whatever, then it is really nice talking about it and I don't feel silly using the language either. It's not a conscious effort to use it, I mean obviously it's easier using it that not, it's like speaking in shorthand in a way".
> (Year 4)

Type 3: evidence of change:

The third type of evidence comes from parts of the interviews when students are talking consciously about changes that they feel they have gone through or about what it feels like looking back over their years of study. Here the student is reflecting on past experience and present feelings and comparing one year with another. The change is demonstrated in one quotation as the student is reflecting on the change and development as he or she has experienced it.

> "One of the things that was most significant to me was realising that it was possible to miss parts of the units or even whole blocks out and you could still pass the examination. That was really liberating. I can't remember how it happened now but it was fairly early on, maybe Year 2. Anyway, after that my whole way of working changed because suddenly I wasn't constrained by the worry of covering absolutely everything".
> (Year 6)

All the above quotations come from one student who has clearly changed in a number of ways over six years of study with the Open University.

In looking at the interviews over time there are three areas which we think we can talk about development over time for these students who have completed or nearly completed their degrees with the OU. They are in the areas of **Confidence, Competence** and **Control.**

Confidence

Most of the students we interviewed had very low levels of self confidence at the start of their studies. In fact, many of them were very unsure of their ability to do the course. For a few of them the effort of coming to apply for the course had been a great step and they looked to the course with the Open University to help them to gain in personal confidence: it was one of their aims in studying.

> "I'm hoping that it will give me more confidence in myself and to actually be able to cope with different situations in life in general. I feel that I need something and hopefully this is going to broaden my outlook".

Over their time with the OU and over the completion and success in passing courses they developed their confidence in a number of important areas. The fact that they felt that they were quite intelligent adults who could pass a course of study was important. They gained in self esteem. Certainly after a few courses successfully completed, they began to relax about their ability and not to feel so threatened by the exams or by the continuous assessment on the course. By the end of the first year the student quoted above could say:

> "I've done four essays now and I've passed them all, so I must be doing adequately I suppose, but I don't feel awfully confident. But then, nobody else seems to either, so I don't feel too bad about it".

After a time they also began to have confidence in their understanding of the system; the course and its structure and began to feel able to choose their own ways of working through material instead of constantly looking for guidance and panaceas of good practice from others; they began to rely on their own way of doing things. Although at this point students may still be unsure of their ability, they neverthe less know how to use the materials provided in a way which suits them.

> "I have been studying more or less the same sort of way this year. I still rely on the 'in text questions' which test for understanding. I always do them because I find I need to. If I don't do them I'm not sure that I understand what I am supposed to have done. I'm still a bit nervous about all this you see."

Students then began to realise that coverage of all the material was not an absolute necessity and began to have the confidence to select certain parts for special attention either because of its inherent importance or because of their own particular interest.

"Well I've got more confidence in myself now. I feel that I can afford to miss bits out that don't interest me so much. I mean I do try to do everything, I don't like missing things out. But, sometimes for time reasons I want to spend more time on one part so I miss out something else. I would never have had the confidence to do that at the beginning".

Beyond this comes a confidence to question material, to feel able to interact personally with the content and to engage in debate about it.

"At tutorials I don't get swept along by the teachers talk, if you like. I stop and say hang on a minute. It's supposed to be a course not just for teachers but there happen to be only two of us on the course that aren't teachers. I tend to feel that it is a bit on the teachers side if you see what I mean and I always feel that I'm on the parents side or the pupils side. It's funny taking sides at all but I feel that they are always starting from the point of view of the teacher so it needs to be more balanced".

Further still the development becomes a confidence to go outside the course material and to feel able to go beyond it on one's own.

"It's difficult to pinpoint the change but it is less important to me now. I don't feel really that I learn anymore now than I did a couple of years ago. I think my stage of development is the same. Maybe I should have gone on to a 3rd level course, maybe it would have been more stimulating. I don't have to work very hard to achieve a pass on an essay and because I'm not terribly keen on the particular course this year, I'm just not working very hard this year. There are still courses that I'm interested in doing but right now I'm more interested in finishing and concentrating on other things for myself. I feel that I've learnt the required skills, like how to analyse and argue and in a way these courses now are just repeating what I have learnt".

The changes and development in confidence thus takes the student through a path of being anxious and unsure of themselves towards a feeling of security in their own ability and courage to become independent in their learning.

Competence

Over their time with the Open University the students developed in their ability to cope with the system and study effectively. In their first year of study all the students had to learn how the system of distance learning was organised and how to recognise and respond to different aspects of the system.

> "I think having done a course already you feel much more able to cope in the second year. You know what is coming and that things are going to keep coming through the post and you know you are going to have to fill in forms for registratrion and Summer School and you haven't got to worry about those things. Whereas last year those things were problems".

For some students this takes quite a long time whereas for other students this familiarity with the system takes only a few weeks.

Once students feel conversant with the system and how it works, they are then able to develop their own way of working within it. They learn about how they can organise their own study in order to get the best from the system. This involves aspects of study strategy, for example, note taking and organising their study time in relation to assessment requirements. Again students varied in how long it took them to establish their study patterns and feel comfortable within the OU system. For example:

> "I always read the assignment question first so that while I'm studying I can underline bits and make notes of things that are relevant for the assignment. And the computer marked parts of the assignment; I do those as I'm going through, because you do have to look back and I'm finding that if I've got to do it all at the end it wastes time. I don't take notes because it all gets very 'bitty', it's better just to make notes in the margins and underline the important bits rather than making separate notes. I did try, but it wasn't terribly successful and so I gave that up".

Once the students feel they can work comfortably within the system they begin to stand back from day to day study of the course and are able to see the course as a whole. They come to gain an overview of the course and to identify the main ideas and themes in the subject area.

> "I take a general look through it to see the structure of it. To see what the aims of the Block are; what they are expecting you to learn, you know what they are meaning to teach. And so, as I'm reading it I know what is to come. I know that one part is about work and the individual and later there will be another part dealing with the economic aspects. I'm prepared for it".

Beyond this standing back and seeing the course as a whole, students begin to see the relevance to the outside world and to question aspects of the course in relation to their own experience. They begin to engage personally with the content of the course and to evaluate it in relation to their own lives rather than as a separate entity.

> "One of the units was about education through autobiography and there was a lot about your home and school life. I really enjoyed doing that because I spent hours thinking about how my parents must have felt. I spent a lot of time thinking about me from their point of view I suppose. I really enjoyed that bit and spent more time on it. The next unit was heavily philosophical and was really quite deep and confusing and I decided to ignore most of it".

Towards the end of their student career, some students begin to feel able to construct their own learning environment and feel less inclined to go on taking courses and more inclined to study their own.

> "I think that the skills I have learnt while studying with the OU are transferable to outside things. I mean, there have been one or two things that I've done in perhaps presenting some ideas or a topic to a group for discussion and I use the same methods for accumulating material and making notes from it and structuring it in the same sort of way even if you know it is for normal presentation rather than written".

> "The OU is definitely less important now, but it is only less important because I'm more important and I'm more important because of it. Because of what it has done for me or shown me or whatever. Or it might just be the confidence that I can look back and say well I've got through thick and thin and come out on top and pleased with myself. But, it has got a lesser place now, but only because it's given me more scope, more ammunition, more confidence. It has definitely led me to other things. It has been a self realisation I suppose of what I can do and be".

In this last quotation we can see the relationship between the two areas of confidence and competence. The two types of development move side by side and one feeds the other. We can consider the relationship not as an external correlation but as an internal logical relationship in students' experience of study. For students to become more competent in study they need to develop in confidence.

Control

Another internal relationship is a transition towards less reliance on the course and the institution to control learning and more reliance on the student personally to take responsibility for study. In many different aspects of control of learning, students demonstrated a development towards independence and autonomy. In the quotations above we can see that at the beginning of their studies students have anxieties about their ability and are feeling unsure about how to go about studying. This makes them very tentative in their approach to studying. They assume they must cover everything and not question the material.

Later, students learn the system and learn how to exercise some control over it. They begin to take charge of their own studying and to make discriminations about the depth and breadth of their study. Later still, through a more personal juxtapostion, they stand back from the material and begin to use it for themselves and their own aims rather than the aims of the teacher or the system. They begin to take control not only of the process of learning but of valuing of the content of the learning in relation to their own needs. Quotations from the first and final interviews of two students will illustrate this development:

> "I don't mind what subject I study, I don't really know much about anything yet. It's all new and when I look at the titles they just say Psychology or Sociology or something I don't know what they mean yet".
> (Year 1)

> "I suppose it's a process because whatever I am reading now, I'm not absolutely dogmatic about things but I certainly know what my position is. Whatever it is that I'm reading I know which one of the approaches is mine. I'm not thinking Oh yes well it could be that or I could think this way about it. My own view jumps out at me first and then I'll consider the others. Studying didn't always seem to be like that".
> (Year 6)

> "I got worried at the tutorial because the tutor was picking the unit to bits and questioning it and I said to her "Look, I'm a foundation student. I dont pull this unit to bits, I accept what they have told me". Sometimes I may not like something that is said but I must accept what is there because I assume they know what they are talking about and if they are putting it to me this way - spoon feeding me, someone who is unlikely to understand any other way".
> (Year 1)

> "I used to think that you had to use your own arguments and I found that very difficult but I know now that you use other people's arguments to build up your case. So I suppose really that I have learnt that there are no real right answers and if you get that in your mind to begin with then you can end up agreeing with some theory if you like, but you don't have to ..... It has meant to me that I feel now that it has been about learning to be more aware for your own personal satisfaction. It makes you realise that you can take control of your own life. I used to think that life just took hold of you and did what it wanted with you but you come to realise that you should take hold of it and make it go your way".
> (Year 6)

Table 1 summarises the points above and attempts to show how these developments are linked both logically and empirically. We are suggesting five stages from Fresher and Novice, through Intermediate and Expert to Graduate as a conceptual model for summarising over longitudinal case study data. The five discreet stages show how a progression towards independence in study is very closely linked to students' development of confidence.

It appears that in order to move to a greater level of competence in studying, students first need to develop the confidence which is a prerequisite for this competence. Similarly, once the student has gained a certain level of competence in dealing with studying this enhances the development of a greater level of confidence. So the two aspects of change develop hand in hand. Alongside these areas of development, control of learning begins to shift from the system to the student. As students feel more confident and competent to make decisions for themselves, so they develop more independence from the teacher and the system.

The successful students in our sample showed a development, albeit at different rates, throughout the six years of the study. Most of them had advanced through all the levels by year 6, but two were still not beyond the Intermediate stage. They were successful in accumulating course credits (and eventually a degree), but were still wanting the OU system to control their learning.

## Discussion

### Orientation and Development

We have already described the orientations to study and found that many of the students have personal orientations, they wanted to do the course for self development and/or to prove that they were capable of degree level work (Taylor, Morgan and Gibbs, 1981). When we look at the type of development and change that these students have undergone we can see that the development is in line with their original reasons for studying. This would be expected on logical grounds and is also demonstrated empirically. What we find particularly interesting is how these changes impinge on all aspects of a student's life - they seem to constitute major adult development.

It appears that some students use the Open University study as a vehicle for changing many aspects of their lives beyond the mere educational or academic levels. The interviews with students over time were very revealing of the many different levels of development some of the students were undergoing. Although it is likely that these students would have undergone personal change with or without the OU over six years, they attribute the changes to their studying. It has been for them the means by which they encouraged themselves to change.

## Conception of Learning and Development

One of the clearest indications of change over time was in the students response to the question about their understanding of the word learning. As well as being able to identify the five conceptions of learning described by Saljo (1979), we were able to trace students development in their understanding over time. As we might have predicted, students moved from the idea of learning as memorising and additions of knowledge towards the idea of learning as understanding and as relating to life. This development was very clear for most students and in some cases went quite rapidly from conception 1 to conception 5. All our successful students had conception 4 or 5 by the end of their fourth year of Open University study. In some cases the quality of students' reflection on this question went beyond Saljo's scheme. Some students spoke of learning as "changing oneself", a definition which may suggest a sixth conception of learning.

## Intellectual Development

The changes in students willingness to move towards taking responsibility for their own learning reflected a growth of awareness of the nature of knowledge and its construction. Students were in their later years of study, less willing to take for granted the words written in the course units. They began to question material and to see that analysis and argument did not necessarily require right and wrong answers. Although our students are mature adults they were still inclined at the beginning of their studies to put themselves in the position of looking to the teacher (correspondence text and face-to-face tutor) for the 'right' answers to questions.

Although our work has been concerned with adult students studying part-time at a distance, their development as learners progresses through the same stages identified by Perry (1970) with 18-21 year old students.

This appears in part to do with students' perception of themselves. At the start of their studies, they lack confidence in their ability to study. They rely on the teaching system (The Open University) to control and direct their learning. Only through experience with the system do they develop confidence and as a result competence in studying. These findings suggest that confidence is the key step, perhaps a limiting factor or prerequisite, in developing competence in learning.

## Developing Skill in Learning

From our research, skill in learning involves students in developing confidence in learning and also competence in learning. By competence we refer to the specific activities a student engages in when tackling a particular learning task or a particular course. Part of this competence is concerned with students' conceptions of learning and intellectual development. The importance of these issues is that they appear to constrain students in how they tackle a task - i.e. their approach to study (van Rossum, Diejkers and Hamer, 1985, and Morgan, Taylor and Gibbs, 1982). The importance of approach to study is that it is directly linked to content and quality of the learning outcomes (Marton and Saljo, 1984).

So skill in learning is a relational concept. The inter-relationship of confidence and competence in learning is intimately linked with conception of learning, approach to study and learning outcomes. These concepts describe learning at increasing levels of generality and provide a holistic description of students' experiences of learning. This relational view of skill in learning is very different to the technical definitions of study skills, such as particular ways to take notes or mnemonic devices embodied in some manuals on study skills.

The conceptual model suggests a number of stages students progress through as they develop skill in learning. Although derived from a small number of in-depth case studies, the richness of the data provides a framework from which to reflect on learning in other contexts, and to raise the level of awareness concerning students' realities of learning. In helping students to develop their skill in learning, this research suggests that activities to focus on confidence in learning and conceptions of learning are likely to be most beneficial for facilitating change.

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Stages of Development

| Stage | | Control to Learning | Confidence | Competence |
|---|---|---|---|---|
| Fresher | 1 | Control by the System and Institution | To enrol | Learning the System |
| Novice | 2 | Control by the System and Institution | To attempt Study | Learning about oneself in the system |
| Intermediate | 3 | Control by the System and Institution | To select | Learning to see a course as a whole |
| Expert | 4 | Control by self within a course | To question | Learning to engage with the content personally |
| Graduate | 5 | Control and autonomy in content and method of learning | "To go it alone" | Learning to use skills and knowledge in new contexts |

Table 1